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**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

In application of: : MATTHEW B. SQUIRE, ET AL.  
Serial No. : 09/407,915  
Filed : September 29, 1999  
For : METHODS FOR AUTO-CONFIGURING A ROUTER ON  
AN IP SUBNET  
Group No. : 2141  
Examiner : A.M. Mirza

**MAIL STOP APPEAL BRIEF - PATENTS**

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

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Technology Center 2100

Sir:

**APPELLANT'S REPLY BRIEF**

In response to the Examiner's Answer mailed April 30, 2004, this Reply Brief is submitted in triplicate on behalf of Appellant for the application identified above. Please charge any necessary fees to Deposit Account No. 50-0208.

**I. The proposed motivations for combining *Monot* with *Li et al* have no support within those references.**

The claims of Group A were rejected over the combination of *Monot* with *Li et al*. In the Examiner's Answer, two motivations were proposed for the first time in support of that combination of references:

In this case connecting the first network device to the subnet based on configuration information for the subnet detected by the first network device is to achieve the retrieving of the configuration data from any location by configuring the existing infrastructure of the network and it will result in reducing the financial burden by upgrading the existing infrastructure, also reducing the latency in terms of reducing the congestion in the network.

Paper No. 19, pages 10-11. As best as the above-quoted language can be understood, the combination of *Monot* and *Li et al* is argued as being motivated by (a) cost-efficiency in upgrading existing network infrastructure and (b) reducing latency of operation. However, the first proposed motivation assumes a feature not evident from the cited references--that is, auto-configuration of a new network device being added to a subnet based on detection of configuration information for the subnet that is--apparently--downloaded from any location in the subnet. As noted in the appeal brief, *Monot* merely teaches an iterative process for selecting parameter values from a predefined range of values already known to the device by testing each value within the range, while *Li et al* teaches downloading defined configuration information that must be manually defined, resulting in no cost-efficiency for upgrades. More significantly, as also noted in the appeal brief, neither reference teaches or suggests that configuration data might be retrieved from any location as asserted in the

final Office Action and the Examiner's Answer. The cited references simply do not contain the teachings attributed to them.

The second proposed motivation for combining *Monot* and *Li et al* ("reducing the latency in terms of reducing the congestion in the network") has no logical relevance to auto-configuration of a new network device. Addition of more network resources will reduce latency and congestion in a network regardless of whether the additional resources are auto-configured or manually configured. The second proposed motivation thus merely relates to the incentive to add additional network devices to the subnet, and does not provide an incentive for achieving the subject matter of the claims.

**II. The Examiner's Answer fails to address reasonable expectation of success.**

The Examiner's Answer fails to address the absence of support within the references for a reasonable expectation of success in combining the references as proposed to achieve the claimed invention. As noted in the appeal brief, *Monot* and *Li et al* are directed at different problems (selecting parameters for a communications protocol versus IP address configuration), such that successful combination is not apparent.

In particular, there is no suggestion in the references that the "probes" (packets, messages, frames, datagrams) employed in *Monot* are suitable for determining the same types of configuration information (domain name, IP address block) contained within the configuration file in *Li et al*.

**III. Anticipation does not encompass “parallel” concepts and functionality.**

As previously noted, *Monot* teaches identifying suitable parameter values within an initial set for a communications protocol employed within network of previously-defined configuration, such as: packet sequence modulo (“8” or “128”); bit fields identifying which X.25 protocol facilities are supported; and Maximum Frame Size number. *Monot*, column 5, lines 62 through column 6, line 14. The system of *Monot* does NOT relate to configuration information for a subnet, such as IP subnet mask, Dynamic Host Configuration Protocol (DHCP) forwarding data, DHCP server address, virtual local area network (VLAN) tag identifications, types, protocols, addresses and port-to-VLAN mappings, Spanning Tree Group information; Simple Network Management Protocol (SNMP) server addresses, Open Shortest Path First (OSPF) timer information, Routing Information Protocol (RIP) broadcast timer information; and/or Virtual Router Redundancy Protocol (VRRP) information.

In fact, *Monot* specifically distinguishes the “general parameters” represented by subnet configuration information as NOT being established by the automatic configuration program, but are manually configured instead:

The user, such as a systems administrator, executes the configuration package 160 on the DTE 110 and manually configures 400 general parameters. General parameters are those for which a value is not established by the automatic configuration program 140, either because they cannot be established automatically based on an analysis of the protocol standard, or because the specific implementation of the program does not determine them. General layer 2 parameters may include, for example, the type of layer, such as LAP-B, LAP-D, and the like. General layer 3 parameters may include, for example, the local address of the DTE 110, such as its X.121 address or E.164 telephone number, the type of layer 3 protocol, such as X.25-3, Q.961, Q.933 and the like. The systems administrator thus also manually configures 402 layer 2 parameters for which a value is not established by the automatic configuration program 140. These steps provide the systems administrator

the opportunity to complete and customize the configuration process if required. In some cases it is anticipated that the systems administrator configures very few parameters at all, such as X.121 address.

*Monot* column 4, lines 40–60. The subnet configuration information (i.e., supported protocols, addresses and masks, and routing information) that is claimed is differentiated by *Monot*.

Moreover, the Examiner's Answer asserts that the operational parameters of *Monot* and the configuration information of the claims "are parallel to each other" in concept and functionality. Paper No. 19, page 14. Such similarity is insufficient to establish anticipation of the claim element absent a showing of (a) a motivation for extending the concept and functionality of the cited reference to encompass the "parallel" subject matter, and (b) a reasonable expectation of success in such extension of the concept and functionality of the cited reference. Neither showing has been established in this application.

**IV. The meaning of "probing" has no relevance to whether the references teaches detection of configuration information for the subnet or configuration information for the device.**

In response to Appellant pointing out that *Monot* and *Li et al* both relate to configuration information of a new device rather than of a subnet to which the new device is being added as recited in the claims, the Examiner's Answer argues that "probing in the field of networking can be described as detecting configuration information for the network." This is an attempt to define a word to carry a meaning not supported by the references. Neither reference teaches detecting the configuration information for the subnet to which a new device is being added. Instead, both relate to configuration information for the new device for operability with the subnet. Neither reference supports the "definition" of probing that is proposed.

**V. The cited references do not contain the teachings asserted in the Examiner's Answer.**

The Examiner's Answer asserts: "that configuration attributes can be easily related to parameter values by using probes"; "that probes detect any change in the value or parameters related to device by acting as part of the function of the protocol parameter . . . the automatic configuration program determines from the probe"; and "that configuration attributes for operably connecting the first network device to the Internet based on configuration information for the subnet detected by the first network device hold the same meaning as to the configuration file contains all of the configuration needed by the customer to configure his Internet access device for the customer desired level of service . . . , where configuration file as to configuration attributes." Paper No. 19, pages 12–13. However, none of these assertions are supported by the teachings of the cited references. In addition, these assertions are irrelevant to anticipation of the claim features.

**VI. Claim 29 is argued as patentable in the Appeal Brief.**

The Examiner's Answer states:

Applicant didn't raise issue in regards to claim 29, therefore examiner accepted that application agreed with the Examiner's rejection. It is right to say that claim 29 is not patentable.

Paper No. 19, page 15. Actually, the final rejection fails to explicitly identify independent claim 29 as a claim rejected by the combination of *Hansen* and *Li et al.* The obviousness rejection citing *Hansen* and *Li et al* identifies claims 1–6, 15–20, 30–34, 43–48 and 57–62, but not independent claim 29. Paper No. 15, page 3. The final rejection only mentions independent claim 29 in passing,

as part of a group of paragraphs discussing various dependent claims rejected over the combination of *Hansen* and *Li et al.* Paper No. 15, pages 4–5.

Regardless, patentability of independent claim 29 is specifically argued as part of the claims of Group B within the appeal brief. See Appellant’s Brief on Appeal at page 9.

**VII. The Examiner’s Answer fails to address numerous points raised in the Appeal Brief.**

The Examiner’s Answer fails to address the inapplicability of *Richmeyer et al* as a prior art reference, and the distinguishing claim features identified for Groups E through K in the appeal brief.

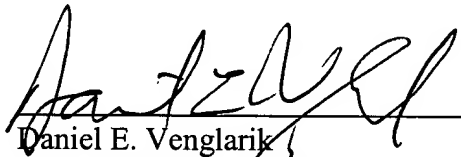
**CONCLUSION**

None of the cited references, taken alone or in combination, depict or describe all features of the invention claimed in Groups A–K. Therefore, the rejections under 35 U.S.C. § 103 are improper. Appellant respectfully requests that the Board of Appeals reverse the decision of the Examiner below rejecting pending claims 1–70 in the application.

Respectfully submitted,

DAVIS MUNCK, P.C.

Date: 6-30-04

  
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Dear Sir:

CERTIFICATE OF MAILING BY FIRST CLASS MAIL

The undersigned hereby certifies that the following documents:

1. Appellant's Reply Brief (in triplicate); and
2. Postcard receipt;

relating to the above application, were deposited as "First Class Mail" with the United States Postal Service, addressed to: Mail Stop Appeal Brief - Patents, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450, on June 30, 2004.

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